

1. Sketch the graph of each function. State its domain and range:

a)  $y = -2^x + 3$

b)  $y = e^x + 3$

c)  $y = 3e^{-x} - 2$

d)  $y = -2^{-x} - 1$

2. Use a graphing calculator to find the zeros of each function (estimate to 3 decimal places):

a)  $y = 2^x - 5$

b)  $f(x) = e^x - 4$

c)  $y = 3^x - 0.5$

d)  $f(x) = 3 - 2^x$

3. Match each function with its graph. Do it without using a graphing calculator.

a)  $y = 2^x$

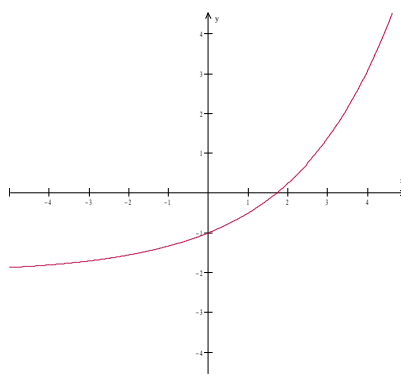
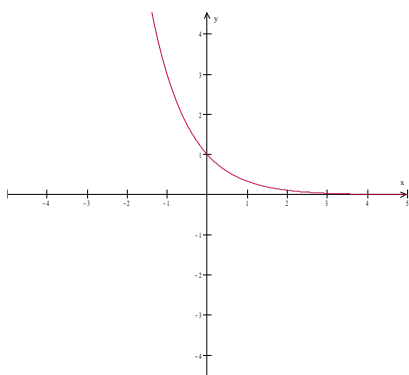
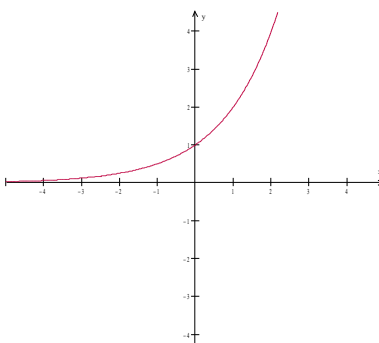
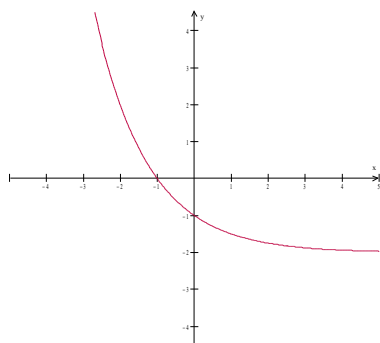
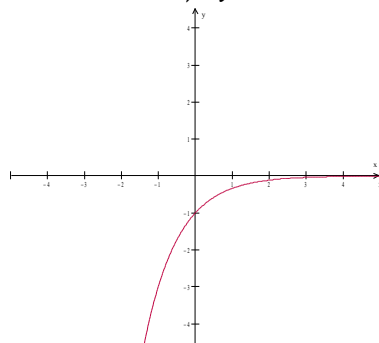
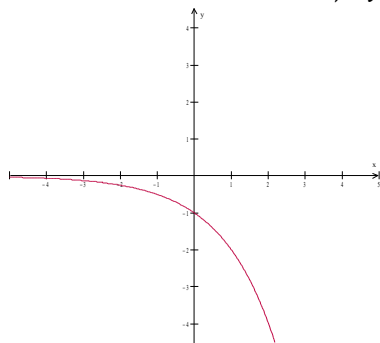
b)  $y = 3^{-x}$

c)  $y = -3^{-x}$

d)  $y = -0.5^{-x}$

e)  $y = 2^{-x} - 2$

f)  $y = 1.5^x - 2$



4. Sketch the graph of each function. State its domain and range:

a)  $y = (\ln x) - 4$

b)  $y = \log_3(x - 4)$

c)  $f(x) = \log x$

d)  $f(x) = 1 + \log_2(x + 2)$

5. Solve algebraically:

a)  $(1.045)^t = 2$

b)  $e^{0.05t} = 3$

c)  $e^x + e^{-x} = 3$

d)  $2^x + 2^{-x} = 5$

6. Find the inverse function of each of these functions:

a)  $f(x) = 10^x$

b)  $y = e^x$

c)  $y = \ln x$

d)  $f(x) = \log_2 x$